Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

In the specimens to which I refer, I counted from seven to ten bractlets. This numerical variation I am confident results from the splitting, so to speak, of some or all of the primary bractlets, as specimens were observed which exhibited all the transitional forms, from a slight indentation at the apex to partial and complete division.

JUNE 17.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-three members present.

Laws of Sex in Juglans nigra.—Mr. THOMAS MEEHAN said he had at various times during the past few years called the attention of the Academy to specimens of numerous plants which illustrated the principle that sex in plants was the result of grades of vitality; or, as it had been suggested, viability; and that this power of life was a mere matter of nutrition; the highest grades of vitality only producing the female sex. Almost any monœcious plants furnished the necessary evidence of the truth of this position, and what he had said or written on the subject had always been done more to direct attention, and to lead others to examine plants themselves, than that the facts were exhausted. He believed that in the main the principle had been so generally accepted by naturalists, that it seemed unnecessary for him to say any more on the subject, but let it now work its own way. At the meeting of the American Association, at Dubuque, last year, which he had not the pleasure of attending, the subject was introduced; and though, as he gathered from the public papers, the principle was to a certain extent admitted, objection was made that possibly the weakened shoot or axis bearing male flowers was a *result* of the production, and if so it would show rather a great expenditure of vital force in their formation, than afford a proof of the principle under discussion. He was astonished at the suggestion at the time, exhibiting as it did, he thought, a careless reading of his papers; as he had stated, and exhibited the facts supporting the statement to the Academy, that, especially in coniferæ, the weakening process had been going on for several seasons prior to the production of male flowers. In the pine and spruce, for instance, he had distinctly stated, that only those branches the most favorably situated to derive the greatest benefit from nutritive forces bore female flowers. These branches in time naturally became shaded by succeeding growths. The partial shade was injurious to perfect nutrition. A few years of these circumstances weakened the branch, *and after being thus weakened*, the male catkins appeared. There were of course other agencies at work besides shade; whatever they were, the result in sex was the same. He did not think it worth while to reiterate, at the time these objections were made; but concluded to wait till this season, and introduce facts from some plant not already named in connection with that sexual law.

He now exhibited specimens of the common black walnut, *Juglans nigra*, which furnished excellent illustrations of what had been said on other occasions. Examining the tree at the flowering season, it would be plainly seen by even a superficial observer that there were three grades of growing buds. The largest buds made the most vigorous shoots. These seemed to be wholly devoted to the increase of the woody system of the tree. Lower down the strong last year shoots, were buds not quite so large. These made shoots less vigorous than the other class, and bore the female flowers on their apices. Below these were numerous small weak buds, which either did not push into growth at all, or when they did bore simply the male catkins. No one who gave this matter any examination with the tree before him, would for a moment entertain the idea that these branches and these buds had been weakened by the effort to produce male flowers. He was fully satisfied that any one who would go out into the woods and fields for their own facts fresh from nature, would be abundantly satisfied that there is not so great expenditure of vital force in the production of male flowers as there is in female flowers, and that all he had advanced on the subject was fully borne out.

June 24.

The President, Dr. **Ruschenberger**, in the chair.

Twenty-six members present.

The following papers were presented for publication:—

" The Pterostichi of the United States." By John L. LeConte, M. D. " Synonymical Remarks upon North American Coleoptera." By John L. LeConte, M.D.

The following gentlemen were elected members:—

E. C. Claghorn, Dr. Henry C. Eckstein, U.S. N., and Wm. H. Rush, M.D.

The following papers were ordered to be published:—